

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-009889**Date Inspected:** 15-Oct-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 1900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** See Below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG & Tower Fabrication**Summary of Items Observed:**

CWI Inspectors: Mr. Guy Yan Fei, Mr. Lv Li Qing, Mr. Li Yang, Mr. Shen Fu You

On this date CALTRANS OSM Quality Assurance (QA) Inspector, Mr. Paul Dawson, arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China, for the purpose of monitoring welding and fabrication of the San Francisco / Oakland Bay Bridge (SFOBB) components. This QA Inspector observed the following:

OBG BAY 5

This QA Inspector observed ZPMC welder Mr. Li Yaunzheng, stencil 217185 is using flux cored welding process WPS-B-T-2132 to make traveler rail fillet welds 10TR3-028-008 and -012. This QA Inspector observed a welding current of approximately 310 amps and 30.2 volts and ZPMC QC representative Mr. Zhong Chang Biao had previously recorded a welding current of 314 amps and 30.8 volts. This QA Inspector observed Mr. Li Yaunzheng is certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

OBG BAY 9

This QA Inspector observed ZPMC welder Mr. Xiao Bianbin stencil 059440 is using gas metal arc welding procedure WPS-B-T-2342-U5(U-rib) to tack weld OBG closed ribs to deck plate DP3045-001. Prior to welding

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this QA Inspector observed ZPMC QC representative Mr. Chen Shigang using a feeler gauge to verify zero gap in the partial penetration weld groove between the closed rib and the baseplate prior to making each tack weld. This QA Inspector observed a welding current of approximately 310 amps and 30.2 volts and Mr. Xiao Bianbin is certified to make this weld. Items observed by this QA Inspector appear to be progressing in compliance with project specifications.

OBG Bay 13

This QA Inspector observed ZPMC welder Mr. Wang Li, stencil 044772 is using shielded metal arc welding procedure WPS-BU5-SMAW-4G-Repair to make overhead (4F) weld SEG066A-004 at OBG segment 11AE. This repair is the result of ZPMC ultrasonic weld rejections. This QA Inspector observed a welding current of approximately 155 amps. This QA Inspector observed the backgouged weld groove appears to have been ground to a shiny surface and the weld groove appears to be free of air carbon arc oxide surfaces as required by the applicable welding procedures. This QA Inspector observed a welding current of approximately 150 amps and Mr. Wang Li is certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

OBG Bay 14

This QA Inspector observed ZPMC welder stencil 215553 has recently completed using the shielded metal arc welding process WPS-B-P-2113-TC-U4b-FCM to make OBG weld SEG056E-106. This QA Inspector observed ZPMC QC Inspector Mr. Guo Xing Hui has recorded a welding current of 175 amps. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Xu Liguang, stencil 200114 is using shielded metal arc welding procedure WPS-B-P-2214-TC-U5-FCM in the 4G (overhead) position to complete weld SSD20-PP77-243. This QA Inspector observed a welding current of approximately 170 amps and ZPMC QC Inspector Mr. Xu Tau has recorded a welding current of 172 amps. This QA Inspector observed that Mr. Xu Liguang is certified to make this weld, the base material was preheated with a touch, the shielded metal arc welding electrodes are being stored in an electrically heated electrode storage container which is warm to the touch and it appears to be connected to the welding power supply cable. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Ms. Xiong Qinshu, stencil 218666 has recently completed using the shielded metal arc welding process WPS-B-P-2113-FCM-1 to make OBG tack welds near panel point PP76 which connect angle braces to the tops of side panel T ribs. This QA Inspector observed ZPMC QC Inspector Mr. Xu Tau has recorded a welding current of 160 amps. This QA Inspector observed the shielded metal arc welding electrodes are being stored in an electrically heated electrode storage container which is not connected to a welding power supply cable and the exterior of the electrode storage container appears to be at an ambient temperature and that the welding electrodes inside are slightly warm to the touch. Shortly after this QA Inspector made these observations Ms. Xiong Qinshu connected the electrode storage container to an electrical power supply. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Wang Fu Peng, stencil 205718 has used shielded metal arc welding procedure specification WPS-B-P-2114-FCM-1 to complete welds SP775-001-001-013 through -024.

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This QA Inspector observed ZPMC QC Inspector Mr. Xu Tau has recorded a welding current of 151 amps. The shielded metal arc welding electrodes are being stored in an electrically heated electrode storage container which is warm to the touch and it appears to be connected to the welding power supply cable. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Hi Hanbi, stencil 202122 has recently completed using flux cored welding process WPS-B-T-2233-TC-U4b-F to make OBG weld SEG051B-025 at OBG segment 9BW between longitudinal stiffener LD003-045 and the adjacent floor beam. This QA Inspector observed ZPMC QC Inspector Mr. Xu Tao has recorded a welding current of 204 amps and 25.3 volts. This QA Inspector verified Mr. Yun Hi Hanbi is certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents

Summary of Conversations:

See Above.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang phone: 150-0042-2372 , who represents the Office of Structural Materials for your project.

Inspected By:	Dawson,Paul	Quality Assurance Inspector
Reviewed By:	Carreon,Albert	QA Reviewer
